



RESEARCH CENTER

Salamanca: center of excellence in biotechnology and health

Entity: Salamanca City Council-Abioinnova

Description: In this presentation, our main objective is to highlight and promote Salamanca as a leading city of excellence in the biotechnology and health sectors. The city has an exceptional supportive environment, supported by institutions such as universities, science parks and research centers, among others. Miguel Ángel Ávila, CEO of Neurofix, will share the success story of this biotechnology company from Salamanca, dedicated to the research and development of molecules. In addition, a new incubator for biotechnology companies called Abioinnova will also be presented, which is an accelerator for biomedical engineering and biohealth companies promoted by the Salamanca City Council.

WEB:

Additive Manufacturing Platform-3D Printing

Entity: FAB3D-CSIC

Description: Additive manufacturing-3D printing prototypes in different technologies and materials. Technical filaments for FDM 3D printing. 3D printing service in technical materials.

WEB: <https://pti-fab3d.csic.es/>

Gait2Care

Entity: CSIC

Description: Gait2Care is an inertial system for gait analysis. The analysis includes a new method based on the segmentation of steps based on the horizontal advancement of the foot, the extraction of characteristic parameters and the detection of motor disorders. The system is made up of two inertial sensors (IMUs) and its own software tool that allows both real-time and subsequent analysis.

WEB: <https://www.gait2care.es/>



1. Robotic claw for grasping and manipulation.
2. Pneumatic valve to control an air flow

Entity: Center for Automation and Robotics (CAR) CSIC-UPM

Description:

1. Robotic claw with soft pneumatic actuators for delicate gripping and manipulation of objects, with no or minimal damage to them.
2. Monobloc pneumatic valve made of an elastic material, intended to control a flow of air that circulates through a circuit of a pneumatic system.

WEB: <https://poc-robocrop.csic.es/>

Obtaining and developing biopolymers and edible/biodegradable coatings

Entity: CICYTEX – Center for Scientific and Technical Research of Extremadura

Description: Development of edible films and coatings made from biopolymers such as polysaccharides, proteins and/or natural active compounds with antimicrobial and/or antioxidant activity. Development of biopolymers and biomaterials that allow us to obtain more competitive, safe, efficient and environmentally friendly products for the agri-food sector.

WEB: <https://cicytex.juntaex.es/accesoria-al-sector-agroalimentario/informacion-general>

Support Services for Research and Business Development of the University of Extremadura (SAIUEx)

Entity: University of Extremadura

Description: Research Support Services of the University of Extremadura and Business Development: Elemental and Molecular Analysis Service (SAEM), Analysis and Characterization of Solids and Surfaces Service (SACSS), Innovation Service in Origin Products (SiPA), Environmental Radioactivity Laboratory (LARUEx), Service of Techniques Applied to Bioscience (STAB) and Radiological Protection Service (SPR)

WEB: <http://saiuex.unex.es>



AR-ENTOMOZOOM

Entity: Grupo Hispatec

Description: Tool for detecting pests in greenhouse horticultural crops through the use of augmented reality technology.

WEB: <https://ar-entomozoom.com/>

HYDROTOOLS

Entity: IDAEA – CSIC (HYDROTOOLS)

Description: Cutting-edge experience in underground evaluations

WEB:

RECOPPs

Entity: IDAEA – CSIC

Description: RECOPPs represents a technological solution based on a physical-chemical process designed for the treatment of waste, initially focusing on the case study of the copper industry. This approach allows for the recovery of critical raw materials and the stabilization of toxic and hazardous compounds. Currently, we are addressing two types of waste, with the recovery protocol for one of them reaching a TRL of 6, while the other is at a TRL of 4-5. Consequently, our proposal includes the presentation of the recovered critical raw materials, accompanied by an explanatory video that highlights the pilot plant of this process.

WEB: <https://recopps.com/>

Gut-Finder. Personalized medicine for healthy aging

Entity: IMDEA Food Institute

Description: AI-based technology to select the specific treatment to personalized modulate the microbiota, considering the new era of therapies focused on Precision Medicine.

WEB: www.food.imdea.org



Cyclotron AMIT

Entity: Carlos III University of MADRID / CYCLOMED TECHNOLOGIES, S.L.

Description: Several prototypes will be presented: a compact cyclotron and an HTS superconducting magnet

WEB: <https://www.cyclomed.tech/>

Wepermedia

Entity: Laboratorio Hipermedia SL

Description: Comprehensive solution for sports analysis

WEB: www.wepermedia.com

Nexu APP

Entity: Nexu

Description: Employeers mental health and well-being platform

WEB: www.nexu.co

VOC chamber: culture chamber for competition tests using volatile compounds

Entity: University of León

Description: Simple and efficient laboratory device that allows experiments aimed at evaluating biological interactions mediated by volatile organic compounds (VOCs), a field of research in constant growth. It consists of a chamber formed by two receptacles where the organisms or compounds studied are housed, and a central piece that connects them and allows the passage of the volatiles. This device has the potential to become a standard methodology in the sector, since it solves important problems, providing flexibility, homogeneity of results and eliminating cross contamination.

WEB: <https://www.mdpi.com/2309-608X/7/4/248>



Artificial respirator Andalucía Respira

Entity: University of Malaga

Description: Unique artificial respirator with authorization from the Spanish Agency for Medicines and Health Products (AEMPS) as an alternative to conventional ones with CE marking in the field of clinical research.

WEB: www.wepermedia.com

Biotonomy

Entity: Biotonomy

Description: It will be explained how we can easily integrate innovative vertical ecosystems and natural water purification systems to make our buildings more sustainable.

WEB: <https://www.biotonomy.com/spanish>

Polykey Polymers

Entity: Polikey Polymers

Description: POLYKEY POLYMERS S.L. (<https://www.polykey.eu/>), is a spin-off that emerged in 2020 from the POLYMAT institute of the University of the Basque Country / Euskal Herriko Unibertsitatea (UPV/EHU). The company's main mission is to provide new processes and materials to the polymer industries, promoting the vision of sustainability throughout the entire life cycle of polymers, including their origin, manufacturing, use and recycling. Polykey offers products and technologies that can be used across multiple sectors and applications to reduce the overall carbon footprint of end products, boosting their performance and contributing to the circular economy. The products and technologies are classified into 3 key areas: new biobased polymers, plastic recycling processes and innovative polymer materials for energy storage (batteries).

WEB: <https://www.polykey.eu/>

Robotic platform for laparoscopic surgery

Entity: University of Malaga

Description: Robotic system designed to assist the surgeon in certain maneuvers of laparoscopic surgical procedures. It presents teleoperated movements and automatic movements of the robotic arms that compose it.

WEB: <https://www.uma.es/medical-robotics/>



Second Life Batteries for portable or home use

Entity: University of Malaga

Description: The prototype consists of accumulators manufactured with second-life lithium-ion batteries (recovered-reconditioned from discarded electric vehicle batteries) for portable use (e.g. power bank) or domestic applications. (e.g. solar energy accumulation)

WEB:

AI and MUSIC: interactive educational games

Entity: University of Malaga

Description: The ATIC group has a long history in developing serious games based on interaction with music for musical learning. This year, as a novelty, an interactive floor is presented with which to learn music, play and exercise

WEB: <https://www.uma.es/atic/cms/menu/proyectos-de-investigacion/proyecto-fitgames/>

Wireless charging pad for multiple scooters without vehicle position fixation

Entity: University of Malaga

Description: The prototype consists of a modular charging platform for one or more electric scooters that transfers power to the vehicle without cables, the charging process being effective with a non-specific position of the scooter as long as it remains on the platform.

WEB: <https://www.uma.es/departamento-de-ingenieria-electrica/info/113639/alicia-trivino-cabrera/>

DECO program. Design in Collective Sports. Fundamentals and Didactics

Entity: University of Malaga

Description: This program is focused on the design of tasks in team sports. It is framed for the teaching of sports in Higher Degrees such as the Degree in Physical Activity and Sports Sciences, the Degree in Primary Education, as well as in the educational stages from 5 years old to Baccalaureate/Professional Training in studies related to sports. This is a program in which the student must structure learning tasks in which movement is simulated. In this way, it can be easily visualized if the student has assimilated the specific contents of game actions in which previously, they were designed on paper and contained gaps and questions about whether the student has truly assimilated these concepts. This animated task will last approximately 5-10 seconds so that the teachers and the students themselves are understanding the phases called



internal logic of the applied games. In addition, this prototype helps society to have digital technology skills in the future, as well as greater awareness in the use of paper, since this program collaborates in reducing tree felling.

WEB: <https://deportes.oneduca.es/auth/login>

SHADOW: Social assistance robot

Entity: University of Malaga

Description: A social assistance robot capable of connecting to an intelligent environment. It develops several functions defined by the users of a nursing home: reminders, collection of menu options, cognitive therapies, etc.

WEB: <https://www.uma.es/avispa>

DIAS2P (Intelligent Device to Increase Safety at Pedestrian Crossings) and StreetQR (Intelligent Base for Street Name Plates and Places of Interest)

Entity: University of Malaga

Description: DIAS2P: Its functions are to increase safety at pedestrian crossings that do not have traffic lights; capture and report vehicular and pedestrian flow, and its characteristics; provide information to the pedestrian (to their mobile phone) // StreetQR: Its functions are to inform citizens in a situational manner; capture and report vehicular and pedestrian flow, and its characteristics; alert the population in case of special situations.

WEB: <https://eventos.uma.es/29978/detail/dias2p-streetqr-i-plan-de-smart-campus.html>

OTL UDEC: Knowledge that transforms

Entity: University of Concepción Chile

Description: Presentation of the University and the technologies that are currently being commercialized, specifically impacting various areas of society at a national and international level and those in search of commercial partners.

WEB: <https://vrid.udec.cl/transfer2024/>



Theams

Entity: Madrid Space

Description: Additively manufactured structure, which significantly increases its heat transfer properties thanks to the use of fluid channels within it, leading to a cooling capacity several orders of magnitude higher than that of conventional structures.

WEB: www.madridspace.eu

NeoMag

Entity: 60Nd S.L

Description: NeoMag represents a novel intelligent system to control the mechanical environment of biological materials, based on magneto-active substrates for non-invasive, multidimensional and real-time control of complex deformation modes on biological cells and tissues. The physical device and associated software provide the first commercially available laboratory equipment for robust and reproducible in vitro testing of mechanically influenced biological processes. The system presents great flexibility to integrate with experimental instrumentation. This technology opens new avenues for precise mechanobiological experimentation, with enormous potential to improve current treatments in, for example, cancer pathologies, pathological scarring of the skin or fibrotic remodeling of the heart during heart attack

WEB: www.60nd.bio

BuckyPET

Entity: Carlos III University of Madrid

Description: PET (positron emission tomography) brain scanner with a disruptive geometry that improves image quality and signal detection capacity, which translates into a reduction in **image time and, more importantly, in the decrease in the radioactive dose injected into the patient.**

WEB: <https://bsel.uc3m.es>



IMHOTECH

Entity: Complutense University of Madrid

Description: IMHOTECH launches KELERAZE, a dermocosmetic for people who have suffered surgery, burns, or accidental injuries. It acts by preventing the formation of keloid scars, facilitating their removal, and eliminating the physical, aesthetic and psychological discomfort suffered by those who suffer from them.

WEB:

STONE 161

Entity: Complutense University of Madrid

Description: The business activity will be the development of restoration projects, topographic monitoring and control of discharges from mining operations, and field work associated with solutions based on nature from a geomorphological point of view. These services have been tested in several active and abandoned farms and are supported by several publications in scientific journals.

WEB: <https://es.linkedin.com/company/stone161>

Applications of Computer Vision

Entity: University of Córdoba

Description: The main lines of research of the "Computer Vision Applications" (AVA) group of the University of Córdoba will be presented. With special emphasis on the "RehApp" web and mobile system to help monitor postoperative joint rehabilitation, developed within the AVA group.

WEB: <https://www.uco.es/rehapp/>

Advances and transfer in the field of water economics, natural resources and agriculture

Entity: WEARE Group and University of Córdoba

Description: Presentation of lines of research, results and transfer of knowledge to society carried out by the Water, Environmental and Agricultural Resources Economics (WEARE) research group PAIDI SEJ 592

WEB:



Innovation Projects in the field of olive groves

Entity: University of Córdoba

Description:

WEB:

Comprehensive study of zoonoses and emerging diseases

Entity: University of Córdoba

Description: The services offered by ENZOEM are the following:

- Microbiological, immunological, molecular, anatomo-pathological and histopathological diagnosis of pathogens and contaminants of interest in animal health and public health.
- Development and scientific-technical advice on epidemiological surveillance programs.
- Early identification of risks in the appearance of zoonoses and emerging diseases.
- Evaluation of resistance, virulence and toxicity of pathogenic agents or contaminants in different biomodels.
- Design, implementation and evaluation of health programs to control diseases on farms.
- Identification, design and evaluation of vaccine candidates.

WEB: www.enzoem.es

Damage detection in critical infrastructure

Entity: University of Córdoba

Description:

WEB:

Development of biocontrol tools against plant diseases

Entity: University of Córdoba

Description: The aim is to continue in the line of selection of candidates of natural and biological origin (microorganisms, organic amendments, plant extracts, biostimulants, resistance inducers, etc.), whether they are solutions from our Research Group or solutions in phases. development initials provided by the company, and their optimization and development as potential biological control agents against the main diseases of the olive grove



(verticilliosis, anthracnose, and tuberculosis) and of nuts, mainly anthracnose, ocher spot and cankers in almond trees; and septoria and verticilliosis in pistachio

WEB: <https://www.uco.es/agronomia/es/patologia-agroforestal-agr-216>

Fan based air sampler

Entity: University of Córdoba

Description: The system consists of a small fan to which a casing is attached in which the sorbent phases are located through which the air passes once it is put into operation and on which the volatile organic compounds and semivolatile.

WEB:

Personalized Medicine through Biomarkers and Artificial Intelligence

Entity: Cobiomic Bioscience SL - University of Córdoba

Description: The company cobionic will be described, which is a spin-off of the University of Cordoba and IMIBIC, which develops personalized medicine tools.

WEB: <https://cobiomic.com/web/>

Use of unconventional yeasts in the improvement of food products and in the reduction of chemical preservatives.

Entity: University of Córdoba

Description: Through the use of a non-conventional yeast called *Debaryomyces hansenii*, we have carried out various studies on how its inoculation affects the quality of cured meat products, both at the organoleptic and food safety levels. So far we have obtained very positive results, having been able to efficiently reduce various preservatives in Iberian loin without affecting its acceptability by the final consumer, as well as avoiding the proliferation of unwanted fungi. We look for new options for the applicability of our research within the field of the agri-food industry.

WEB:



DCOOL – Decarbonization of cooling systems

Entity: University of Córdoba

Description: Indirect evaporative cooling system with very high efficiency and low environmental impact developed from additive manufacturing techniques and recycled polymer materials.

WEB: <http://www.uco.es/rate/>

From Waste to Resources: Promoting Circularity in Andalusia through the Valorization of Agroindustrial Byproducts

Entity: University of Córdoba

WEB:

Bleecker System: automatic identification with Computer Vision

Entity: Bleecker Technologies

Description: Automatic identification system based on Computer Vision that facilitates the tracking and traceability of any merchandise through the use of cameras. This system overcomes the deficiencies of traditional technologies based on barcodes or RFID.

WEB: <https://bleecker.tech>

Microlab Biotech

Entity: MicrolabBiotech S.L.

Description: Microlab Biotech was born as a spin off of the University of Valencia to propose solutions to the challenges of tomorrow. It works 360° in the revaluation of waste from the agri-food industry to obtain resources with high added value, promoting the circular economy and clean labeling.

WEB: <https://microlabbitech.com/>



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Matteco Team SL

Entity: Matteco

Description: Matteco is a materials technology company focused on new solutions to decarbonize the economy and help build a better future together.

The company offers proprietary high-performance catalysts, catalytic coatings and electrodes, developed using innovative nanotechnology that sets a new standard for alkaline electrolysis and AEM. These advanced materials greatly reduce energy consumption (reducing opex) and increase current densities (lower capex), making green hydrogen more cost-competitive to contribute to the fight against climate change.

Matteco is a spin-off born from the combination of the research experience of our co-founder and CTO Gonzalo Abellán, with more than 10 years of experience in R&D in the field of materials technology, with the business and investment experience of our co-founder and CEO Iker Marcaide. Our journey is an example of how a technological advance goes from the laboratory to the market and becomes a driver of change towards a sustainable energy landscape.

WEB: <https://matteco.com/>

Guardian

Entity: HIDRAQUA and Business Confederation of the Valencian Community

Description: Applying biotechnological processes, it develops raw materials and natural products for the agri-food, nutraceutical and cosmetic sectors, improving crop yields, reducing the use of pesticides or synthetic additives, improving the quality and safety of food, promoting an improvement on the health of the population and a positive impact on ecosystems.

WEB: <https://www.hidraqua.es/proyecto-guardian>

Photon detection and imaging system

Entity: CSIC - Delegation in the Valencian Community

Description: Compact device for the detection and imaging of distributions of radioactive sources emitting gamma radiation. The device incorporates a novel patented system for reducing the background signal thanks to the ability to detect charged particles. The device is being particularly developed for medical applications, specifically the monitoring of cancer therapies, including radionuclide therapy and proton therapy.

WEB: <https://www.hidraqua.es/proyecto-guardian>



AVANCLT Project

Entity: REDIT

Description: AVANCLT Project: New generation of cross-laminated striped wood construction systems that are more resistant to humidity and earthquakes. The contribution of the Spanish Forest Technology Platform and its derived industries (PTFOR) to sustainable construction with wood

WEB:

Calpech. Production of iron nanoparticles from olive industry waste

Entity: University of Alicante

Description: Valorization of waste from the olive industry and production of iron nanoparticles for use in renewable energy, decontamination, and fertilizers

WEB: www.calpech.com

Beetool

Entity: CEU Cardenal Herrera University

Description: Solutions for MAINTENANCE and repair of surface damage of wind turbine blades

WEB: <https://beetool.es>

Ecoconcrete

Entity: Catholic University of Valencia San Vicente Mártir

Description: Development and validation of an eco-concrete, or sustainable concrete, based on the use of agricultural or industrial by-products in its composition that allow it to reduce its carbon footprint, as well as evaluate its enrichment with nutrients and functional bacteria to improve the colonization process. This eco-concrete will also meet the necessary requirements for its application in maritime infrastructure.

WEB: <https://www.ucv.es/quienes-somos/campus-y-centros/imedmar/esp/proyectos/proyectos-activos/artmid/11918/articleid/8927/ecoformigon>



NEODYS: Sustainable Disinfection, Safe Sterilization

Entity: Universitat Jaume I

Description: MOLECULAR has developed Neodys, an innovative disinfection and sterilization method that eliminates the need to produce, transport, store and use carcinogenic, mutagenic and explosive chemicals. The technology allows the active agent to be generated at the point of use and on demand through an automatic generating device, which avoids the use of plastic containers and the generation of toxic and dangerous waste. Neodys will mark a milestone in the sterilization of medical devices, replacing ethylene oxide with an effective and safe alternative.

WEB: <https://espaitec.uji.es/empresas-parque/molecular/>

ONCOhabitats

Entity: Polytechnic University of Valencia

Description: IDH-wild type glioblastoma represents the most common and deadly form of central nervous system tumor, and patients usually survive only 12-15 months after diagnosis despite aggressive treatments such as surgery, radiotherapy and chemotherapy. Its high aggressiveness is attributed to the great infiltration capacity of tumor cells and the significant variability between patients. The ONCOhabitats system helps detail tumor heterogeneity by identifying four distinct areas within the tumor region, which can influence treatment outcomes. This segmentation reveals areas with different angiogenic activity and edematous characteristics, and some regions indicate possible survival predictions based on their vascular characteristics. Recent research has also shown that combining MGMT methylation status with tumor relative cerebral blood volume (rCBV), determined by MRI, can effectively stratify patients according to their likely response to temozolomide treatment. Specifically, patients with lower rCBV values appear to benefit more from treatments targeting MGMT methylation. However, prolongation of temozolomide treatment in patients with highly vascular glioblastomas, despite MGMT methylation, may not offer additional benefits, suggesting the importance of these markers in guiding treatment strategies.

WEB: <https://www.oncohabitats.upv.es>

Sensors for drug detection of chemical submission and cellular aging

Entity: University of Valencia

Description: Chemical sensors for the detection of chemical submission drugs and cellular aging by color change or fluorescence

WEB: <https://www.oncohabitats.upv.es>



Soft skills in Virtual Reality

Entity: Inmersium Estudio

Description: Our experiences train people in soft skills such as empathy, leadership, communication, teamwork

WEB: <https://www.inmersiumstudio.com/>

Medship

Entity: Fish&Food Technology

Description: The prototype presented by Fish and Food Technologies, called "MEDSHIP", consists of an innovative remote management system for the dispensing of medicines in the maritime-fishing sector. This solution, based on IoT technology and a cloud system, simulates a warehouse at scale, facilitating centralized control of the inventory of medicines on board, including monitoring of quantities and expiration dates. This approach ensures the availability and correct administration of drugs, improving medical care at sea and optimizing resource management, representing a significant advance in safety and efficiency for the maritime industry.

WEB: <https://fishandfoodtechnology.com/>

iLuminaryAI Wallet

Entity: iLuminary SRL

Description: iLuminary is a startup focusing on its iLuminary Wallet application, which uniquely integrates artificial intelligence technology for an enhanced digital asset management experience in the blockchain domain. The app leverages AI for advanced market analysis and portfolio optimization, catering to both novice and experienced users in the crypto economy. This AI-driven approach, combined with an easy-to-use interface and the ILMT token economy, positions iLuminary to have a significant impact on the cryptocurrency management solutions sector.

WEB: <https://illuminary.ai/>



Falke Esports

Presenting entity: Falke Esports

Description: Fesde Falke advocates comprehensive training for our players and users both inside and outside of Esports. What we are trying to do is add our grain of sand, to achieve that professionalization in an emerging, very young sector, with all that this implies. There is a lot of opportunities, but also a lot of smoke about all this, so there is a lot of work to do.

WEB: <https://shop.falkeesports.com/>

Logistics

Entity: Logistiko

Description: Logistiko offers a B2B SaaS solution that helps any company with last-mile logistics processes optimize and scale their operations, allowing them to be more profitable **and sustainable and offer a better experience to their customers.**

WEB: <https://logistiko.es/>

Wind and photovoltaic power generation predictors

Presenting entity: Ravenwits

Description: We have developed wind and photovoltaic energy generation predictors using Deep Learning architectures. Forecasters use the past few hours' weather forecasts and production as input, and make predictions for each of the next 240 hours.

WEB: <https://www.ravenwits.com/>

PANDORA (astronomical double camera system)

Entity: CSIC

Description: An astronomical system for real-time night sky monitoring has been designed at the CSIC and is being used in southern Spain to record meteoroids and artificial satellites, which are sighted every night against the background of the sky.

WEB: <http://bootes.iaa.es>



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FARO Project: R&D for social and healthcare at home

Entity: Andalusian Confederation of Alzheimer's and Other Dementias

Description: Presentation of the FARO Project and the R&D Strategy of the Andalusian Confederation of Alzheimer's and Other Dementia

WEB: <https://www.confeafa.org/>

Do you have an innovative project and are looking for R&D&I financing?

Entity: CTA – Technological Corporation of Andalusia

Description: presentation of CTA, financing of R&D projects and consulting services

WEB: <https://www.corporaciontecnologica.com/>